Burge (J.H.H.)

A NEW OBSTETRIC FORCEPS

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A NEW OBSTETRIC FORCEPS—MULTIPLE, ADJUSTABLE AND RE-ADJUSTABLE.

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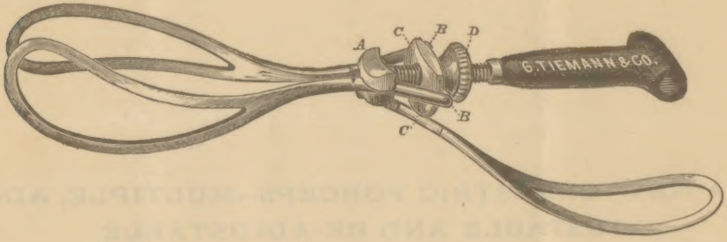
Since perfecting the instrument which I present to the profession this evening for the first time, I have, to some extent, reviewed the history of the Obstetric Forceps, and have taken some notes upon the subject which may not be void of interest to those of you whose thoughts have run in other channels.

It was my intention to read these notes to-night, but, upon reflection, it seems better to devote the few minutes at my disposal to the exhibition and description of my device, and to reserve the literature of the subject for another occasion.

If an alphabetical list were made of all the names which have been connected with modifications of the Obstetric Forceps, it would so nearly resemble a city directory that some apology seems necessary from one who seriously proposes to occupy your time and attention with one more novelty. I should hardly have the temerity to do it, if I were not supported, and even slightly elated, by the confidence that I have something useful to offer.

This instrument is so simple in its construction that if I had sent it to you last night in an obstetric emergency, by mistake for Elliot's, Bedford's or Smellie's, I believe you would have proceeded to deliver your patient at once, and without embarrassment; and yet I call it multiple. I give it this title, not simply because the blades and handle are made separate, but because the lock being in the end of the handle, you can

take your choice from as many blades as you please to carry, and they will all fit securely. If the convenience of carrying an instrument in the pocket when the handles are detached were a main feature of my device, I would have held my peace; for in this Pajot, of France, and Dr. F. H. Stewart, of this city, have preceded me; and the folding handles of Levy, of Copenhagen, Saxtorph and others are well known.



While upon this point, however, you will observe that as these blades do not cross, we have but one handle to carry. To describe this instrument, I have only to say, blades of any pattern you please. *These* are Elliot's, length, width, cranial and perineal curves, and all. These blades are separately slipped upon the fœtal head, and when in place the handle is passed between them and drawn back until it locks at A. This lock forms a ginglymus, and is perfectly secure. The free extremities of the blades B B, projecting on either side of the handle, form levers by which the blades are separated or approximated at will. These levers are acted upon by a slide C C, which moves up and down freely upon the handle, and is secured at any desired point by means of a nut D D, which revolves also upon the handle. The amount of compression which the blades shall make upon the fœtal head is under perfect control. The first peculiar advantage, then, which I believe this instrument possesses, is its perfect adjustability—you can make as little or as much compression as you desire; but what you make you make intelligently and intentionally. I tell you nothing new, gentlemen, when I say that in difficult cases there has always been some trouble in gauging the amount of compression at the same moment that great extractive force was necessary to be employed. Our own Elliot has testified to this difficulty by inventing, perhaps, the best of all the inefficient means employed to overcome it. I allude to the screw, which prevents a close approximation of the handles.

2d. This instrument is *re*-adjustable at any moment during the process of delivery, if an advance of the head or any change in its position relatively to the maternal parts should render such re-adjustment desira-

ble. The ease with which the handle is slipped on and off, the fact that the blades do not cross each other, and that they may be moved independently in any direction, and the additional fact that each blade may be separately manipulated and adjusted, give to this instrument an advantage which, I think, will be readily appreciated by the practical obstetrician.

3d. All blades being made to fit one handle, experts who desire to be thoroughly furnished for every emergency, can, at slight expense, have a sufficient variety—a multum in parvo—from which to select for immediate use. I regard it a peculiar excellence of this instrument, that it sacrifices none of the good things which have been given us, from the time of Chamberlain even until now. With it you may have the blades long, short, straight, curved, double-curved, fenestrated, non-fenestrated, etc.; in short, the accoucheur can suit his own taste, or follow his own convictions as to the form which he shall use. There is an absurdity in using the same instrument for all cases—for the delivering of babes weighing two pounds and those weighing fourteen, for one head absolutely spherical, and another extremely elongated. The ordinary long forceps has been brought to such perfection that its adaptation to these extremes is wonderful, and yet the great advantage to be gained by a proper selection can hardly be questioned. In the past this selection has been impossible.

4th. A notch or socket is provided on the under side of the handle for the attachment of a third blade, if, in any extraordinary case, it were thought desirable to use one. As this will seldom happen, the lock is made available for the *Tarnier* traction. A button on the lever end of the third blade fits this lock, and although it is not exactly in the line of the superior strait, it is sufficiently near it, in my opinion, to give us all the benefit of Tarnier's valuable suggestion. For the benefit of the few who are not familiar with the improvement of M. Tarnier, I will say that it consists of a bifurcated handle attached to the under surface (lower anterior edge) of the blades when in situ, by which traction may be made, as nearly as the perinæum will allow, in the line of the superior strait, at the same time that the ordinary handle is used. I will not enter now upon the discussion of this subject, my only desire being to call attention to the fact that Tarnier's attachment can be used with my instrument in his own way, or we may adopt the modification of it which I have described.

5th. As to facility of introduction, more depends upon the character of the case than upon the style of the instrument, and quite as much, also, upon the tact and experience of the hand that guides it. Nevertheless it will be patent to every one that a light, short blade can be passed into the pelvis and upon the fœtal head, *cæteris paribus*,

more easily than the same blade with a handle of five inches attached. To apply the latter the thighs are often strongly abducted, and a prominent abdomen gives none too much room for the necessary manipulation. It has been suggested that with oily fingers one could not use these detached blades as easily as those with handles. A careful view of the construction of the instrument will show that, as soon as the blades are slipped approximately into place, they are, separately or together, more completely under the control of the accoucheur by means of the handle, which he can slip off and on as he pleases, than the blades of any other instrument—simply because they are manipulated separately, and do not cross and thus interfere with each other.

6. A straight blade is here provided to be used as a vectis. This can be slipped into place and the handle securely attached, almost without the patient's knowledge. The vectis is seldom used; but I believe that many cases of labor could be much shortened, and much suffering avoided by the judicious, tentative use of a single blade so entirely under the control of the operator.

7th. Last and least, and yet, I am sure, not unimportant, is the consideration that one can go into the presence of the patient without proclaiming the fact that the labor may become instrumental—a small, straight package, which would excite no suspicion, even if seen, being all that is required.

I desire now to anticipate a possible criticism which would be likely to fall from the first speaker, viz.: that it is unsafe and absolutely a move in the wrong direction, to seize a child's head in the dead gripe of an insensitive iron vise, and that blades operated by screws and levers must be this and nothing else. I have stated this objection as strongly as I could, because it is the first thought that would be likely to enter the mind of a stranger in reading a description of this instrument, and I hope to show to your entire satisfaction that, although it is strong, it is perfectly safe and manageable. You will observe: 1st, that the screw D, by the feeling of resistance which it imparts to the hand of the operator, gives a better indication of the amount of compression being made upon the head of the fœtus than any accoucheur can get while making powerful traction with the ordinary forceps; and you will observe—2d. that the very instant you cease making traction, you can entirely relax the pressure by a single turn of the screw.

It has occurred to me that some of you may get the impression that I expect by this instrument to convert serious cases into simple ones. I desire to say distinctly that I have no such idea. If by its use the practitioner may be aided in his arduous task, and the sufferings of the parturient woman, in any class of cases, be relieved with greater facility, I shall be glad.